

Summary of Statewide Support for AZ Academic Standards

Overarching Goals for Content Areas

- Provide leadership in the revision of the Arizona Academic Standards
- Provide support to teachers in implementing the Arizona Academic Standards in mathematics, science, social Studies , and language arts
- Data used to target professional development and technical assistance
 - AIMS assessment data if available
 - Core Program Review results
 - Student misconceptions
 - Anecdotal data from teachers
- Integration of differentiated instruction, ELL, and intervention in all sessions when appropriate
- Relevant research should be cited in all sessions
- Development of lesson plans using IDEAL format
- Development of face-to-face, online, and mixed delivery professional development
- Development of discussion forums, webinars, and courses (Field-test webinar with mathematics-Introducing the Mathematics Standard)
- Development of administrator's session focusing on mathematics
- Expansion of Learning Resource Manager
 - Expansion of CRSM (Content-Rich Support Materials: Science, Social Studies, Lang. Arts)
 - 145 **NEW** resources pending
 - Expansion of Trade Book Database (Science, Social Studies, addition of Mathematics)
 - 47 **NEW** trade books pending
 - Begin with K-3 American and World History: Link to existing standards-based lessons and develop new lessons using IDEAL Lesson Template
 - 12 **NEW** Social Studies lessons pending
 - Develop additional examples and lesson plans for 2008 Mathematics Standard
 - Align Thinkfinity resources to Science Standard (other content areas to follow)

Conferences/Collaboration/Projects

- Assessment (provide content and alignment expertise): AIMS committee work, formative assessment items, and student sample test items
- Revision of Standards: provide leadership for Mathematics, Science, Social Studies, and Language Arts and assistance to other content areas (Technology, Health, and Physical Education)
- Development and maintenance of content pages on ADE website
- Presidential Awards for Mathematics and Science: Coordination of state competition and recognition
- Mathematics and Science Partnerships Program: Since 2004, the ADE has awarded 64 grants to LEAs in all 15 counties. Approximately 4,100 teachers have been involved in intensive, job-

embedded, content-driven professional development resulting in instruction which has impacted approximately 142,000 Arizona students.

- Mathematics Endorsement Committee (provided leadership on defining courses)
- Mega Conference: Mathematics (Introduction to the 2008 Mathematics Standard, Elementary Mathematics Rtl and Effective Instruction: Administrators' Session) and Science (Using AIMS Results to Guide Science Instruction)
- School Improvement Forums: Mathematics (Introduction to the 2008 Mathematics Standard)
- Leading Change: Architecture of Standards-Based Instruction
- AZ Counts: Unwrapping the Mathematics Standard and Introduction of grade level documents)
- SPDG (School Personnel Development Grant-Collaboration with ESS): Support for schools implementing a Mathematics Rtl project (ongoing)
- County ESA Professional Development Days; District Professional Development Days
 - Pinal, Yuma, Navajo, Gila/Graham/Greenlee Counties
 - Roosevelt, Fowler, Flagstaff, Amphitheater, Deer Valley, and Kyrene School Districts and BIA Schools
- AATM Conference (Arizona Association of Teachers of Mathematics): Introduction to the 2008 Mathematics Standard
- MEAD Conference (Mathematics Educator Appreciation Day): Introduction to the 2008 Mathematics Standard – two sessions on Middle School and College Work Readiness
- AMLC (Arizona Mathematics Leadership Coalition): Leadership in establishing and supporting statewide mathematics leadership network
 - Phoenix Regional Meeting: 1/27/09
 - Tucson Regional Meeting: 3/11/09
 - Navajo County Regional Meeting: Spring 2009
- Institute for Mathematics & Education: Facing Choices about the 4th Credit Choices
- INTEL: Mathematics Curriculum for Elementary School Teachers
- ASTA (Arizona Science Teachers Association): Ready, Set, Science!
- NSTA (National Science Teachers Association): Regional Conference Planning Committee: Dec. 2009
- Audubon Arizona / Arizona Environmental Literacy Plan
- Arizona Science Center : CRSM Trade Book Lesson on Erosion
- Arizona Biosciences Roadmap (Education committee, ongoing)
- INTEL Science and Engineering Fair (judge student projects)
- AZ Regional Science Bowl (science content judge)
- Academic Decathlon (judge student performance)
- ACSS (Arizona Council for the Social Studies): Content-Rich Support Materials, GeoHistory
- NCSS (National Council for the Social Studies): GeoHistory, National Conference Planning Committee: Nov. 2009
- GeoFest: Annual Conference of the Arizona Geographic Alliance, GeoHistory Project
- National Conference on Geography Education (NCGE): Presentations on ADE programs
- NAEP 2010 Geography Test Development Standing Committee

- Arizona Geographic Alliance GeoDay Trips: CRSM Trade Book Lessons
- Arizona State University West (Preservice Classes in Social Studies)
- Arizona Historical Society: Volunteer/Docent Training
- Arizona Geographic Information Council (AGIC): provided GPS Introductory and Advance Teacher Professional Development and helped in creation of K-12 Standards – based GPS lessons for Arizona teachers
- GeoHistory (Arizona Geographic Alliance and Arizona Historical Society): Connecting geography to history in SS Standard; areas of need for curriculum materials/lessons
- Our Courts (Sandra Day O'Connor Civics Education Curriculum Project)
- Library of Congress Teaching with Primary Sources Program (33 participants/11 counties represented)
- Arizona Historical Advisory Commission: ADE Arizona Centennial Plan (ongoing)
- Arizona Centennial Legacy Project Collaboration (Arizona Geographic Alliance)
- Abraham Lincoln Bicentennial (Governor's Council)
- Fox 10 News: Arizona History Challenge (Pending)
- We the People (Legislative district level competition judge)
- State Geographic Bee (judge)
- National Geographic Education Foundation (GeoHistory Project): Developing a National Resource Base. The purpose of this project is to identify, develop, and disseminate instructional activities which deal with historical events and information from a geographic perspective. The two-year, \$197,500 grant will last through December, 2010. In addition to Michigan, Mississippi, New York, and Texas (the partners on the initial project), Arizona and Indiana will also be participating.

Mathematics

Since the introduction of the 2008 Mathematics Standard at AZ Counts in July 2008, approximately 1300 teachers have received professional development pertaining to the new standard and the content contained within.

- Selecting Mathematics Curricula Seminar (Plans for NEW Core Review in Mathematics in Summer 2009)
- Curriculum Topic Study: Number and Counting (K-3)
- Curriculum Topic Study: Fractions, Decimals, and Percents (4-8)
- Curriculum Topic Study: Reasoning and Proof with Connections to Algebra and Geometry (K-12)
- Geometry and Measurement with Connections to Mathematical Investigation and Reasoning (7-12)
- **NEW** Unwrapping the Mathematics Standard (K-12)
- **NEW** Vertex-Edge Graphs (2-6), Vertex-Edge Graphs (7-12)
- **NEW** Constructing Number Sense (K-3)
- **NEW** Constructing Multiplication and Division (3-5)
- **NEW** Constructing Fractions, Decimals, and Percents (4-8)
- **NEW** Connecting Algebraic Representations (5-8)
- **NEW** Analysis of Change: Where Algebra and Geometry Intersect (9-12)

Science

During this school year to date, 154 teachers across the state have been impacted by our targeted professional development in science.

- Selecting Science Curricula Seminar
- Curriculum Topic Study: Photosynthesis and Respiration
- Curriculum Topic Study: Properties of Matter
- Curriculum Topic Study: Evidence, Explanation, and Modeling
- Properties of Matter (Grades K-2)
- Properties of Matter (Grades 5 and 8)
- **NEW** Electricity and Magnetism (Grades K and 4)
- **NEW** Force and Motion (Grades 5 and 8)
- **NEW** Using Trade Books to Teach Science and Social Studies (Science-2nd grade model)
- Unwrapping the Science Standard and the Backward Design Model (K-12) – available through IDEAL
- **NEW** Writing in the Content Areas (Collaboration with K-12 Literacy)
 - Six Traits Writing in Science: Adolescent/Secondary Level (7-12)- delivered by Sopris West

Social Studies

During this school year to date, 202 teachers have attended our professional development offerings focusing on social studies topics.

- Selecting Social Studies Curricula Seminar
- Social Studies Standard: What K-6 Teachers Need to Know and Be Able to Teach
- **NEW** Introductory Topic Study in Social Studies- What is Geography? (K-8)
- **NEW** Topic Study in Social Studies- Linking Geography and World History (9-12)
- **NEW** Library of Congress Teaching with Primary Sources
- **NEW** Using Trade Books to Teach Science and Social Studies (Social Studies-3rd grade model)
- Implementing the Articulated Social Studies Standard (available through IDEAL)
- **NEW** Writing in the Content Areas (Collaboration with K-12 Literacy)
 - Six Traits Writing in Social Studies: Adolescent/Secondary Level (7-12)- delivered by Sopris West